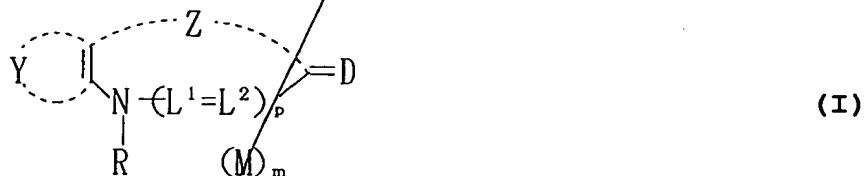
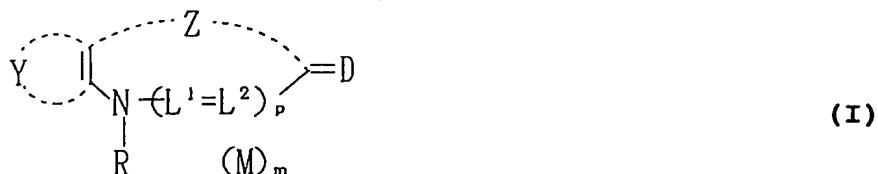


WHAT IS CLAIMED IS:

1. A silver halide photographic material which comprises at least one methine dye represented by the following formula (I):



wherein Y represents a furan ring or a pyrrole ring, and Y may further be condensed with other 5- or 6-membered carbocyclic ring or heterocyclic ring, or may have a substituent; the bond between two carbon atoms in which Y is condensed may be a single bond or a double bond; Z represents an atomic group necessary to form a 5- or 6-membered nitrogen-containing heterocyclic ring, and Z may further be condensed with other 5- or 6-membered carbocyclic ring or heterocyclic ring; R represents a substituted or unsubstituted alkyl group, aryl group, or heterocyclic group; D represents a group necessary to form a methine dye; L¹ and L² each represents a methine group; p represents 0 or 1; M represents a counter ion; and m represents a number of 0 or higher necessary to neutralize the charge in the molecule.

[illegible]

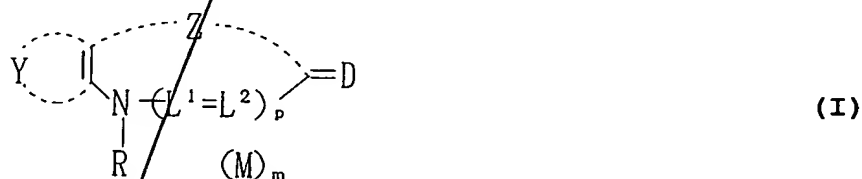
wherein Y represents an atomic group necessary to form a 5- or 6-membered unsaturated heterocyclic ring, and Y may further be condensed with other 5- or 6-membered carbocyclic ring or heterocyclic ring, or may have a substituent; the bond between two carbon atoms in which Y is condensed may be a single bond or a double bond; Z represents an atomic group necessary to form a 5- or 6-membered nitrogen-containing heterocyclic ring, and Z may further be condensed with other 5- or 6-membered carbocyclic ring or heterocyclic ring; R represents a substituted or unsubstituted alkyl group, aryl group, or heterocyclic group; D represents a group necessary to form a methine dye; L<sup>1</sup> and L<sup>2</sup> each represents a methine group; p represents 0 or 1; M represents a counter ion; and m represents a number of 0 or higher necessary to neutralize the charge in the molecule; wherein the condensed ring containing Y and Z in the methine dye represented by formula (I) is selected from the following Y-1 to Y-26, provided that Y-1 to Y-3 and Y-6 to Y-26 may further be condensed with

1. *Chlorophyll a* (Chl *a*) is the primary photosynthetic pigment in most plants and algae. It is a green pigment that absorbs light energy in the blue and red regions of the visible spectrum.

c1cc[nH]c1S2CCN2c1cc2c(c1)sc(n2)\*C1=CC=C2C(=C1)S=C2NO=C1C=CC(=O)N1O=C1C=CC(=O)N1C2=CC=CC=C2\*c1cc2c(c1)nc3ccccc3n2c1cc2c(c1)nc3ccccc3n2C1=CC=C2C(=C1)N(C2)N3C=CC=C3C1=CC=C2C(=C1)N(C2)N3C=CC=CC=C3\*c1ccc2c(c1)c(c[nH]2)c1ccc2c(c1)c(c3ccccc32)S1CCCCC1\*c1nc2ccncc2s1\*c1ccc2c(c1)c(c[nH]2)c3cc[nH]3c1ccc2c(c1)c(c3ccncc32)Oc1cc2nc3ccccc3n2c1C1=CC=C2C(=C1)S=C(C2)N3C=CC=CC=C3c1cc2c(c1)ncn2Sc1ccc2c(c1)c(c[nH]2)Oc1cc2c(c1)oc3ccccc3n2C1=CC=C2C(=C1)N(C2)C3=CC=CC=C3c1ccc2c(c1)c(c3ccccc23)Nc1ccc2c(c1)c(c3ccccc3n2)c4ccccc4\*c1ccc2c(c1)cnc2c1ccc2c(c1)c(c3ccccc32)n1ccccc1

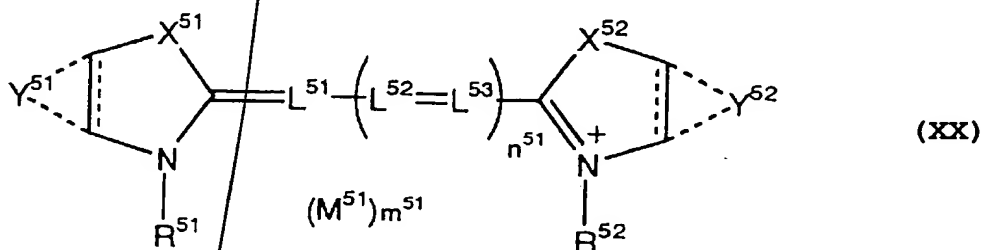
in each structural formula, \* represents a position to link to a methine chain.

3. A silver halide photographic material which comprises at least one methine dye represented by the following formula (I):



wherein Y represents a thiophene ring in which at least one halogen atom is substituted, and Y may further be condensed with other 5- or 6-membered carbocyclic ring or heterocyclic ring, or may have a substituent; the bond between two carbon atoms in which Y is condensed may be a single bond or a double bond; Z represents an atomic group necessary to form a 5- or 6-membered nitrogen-containing heterocyclic ring, and Z may further be condensed with other 5- or 6-membered carbocyclic ring or heterocyclic ring; R represents a substituted or unsubstituted alkyl group, aryl group, or heterocyclic group; D represents a group necessary to form a methine dye; L<sup>1</sup> and L<sup>2</sup> each represents a methine group; p represents 0 or 1; M represents a counter ion; and m represents a number of 0 or higher necessary to neutralize the charge in the molecule.

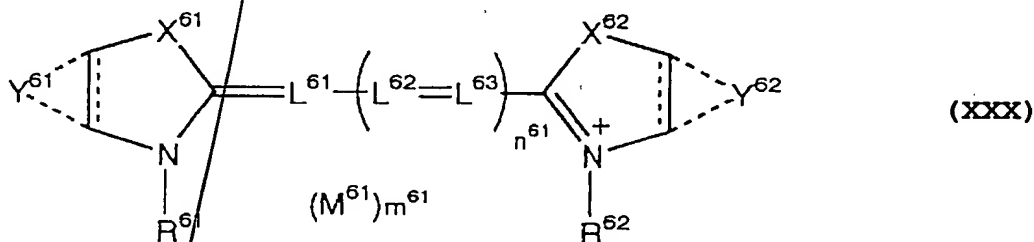
4. The silver halide photographic material as claimed in claim 1, wherein the methine dye represented by formula (I) is represented by the following formula (XX):



wherein Y<sup>51</sup> represents a furan ring or a pyrrole ring which may be condensed with other 5- or 6-membered carbocyclic or heterocyclic ring or may have a substituent, and two carbon atoms to which Y<sup>51</sup> is condensed may be bonded by a single bond or a double bond; X<sup>51</sup> and X<sup>52</sup> each represents an oxygen atom, a sulfur atom, a selenium atom, a tellurium atom, a nitrogen atom, or a carbon atom; Y<sup>52</sup> represents an atomic group necessary to form a benzene ring or a 5- or 6-membered unsaturated heterocyclic ring, which may further be condensed with other 5- or 6-membered carbocyclic or heterocyclic ring or may have a substituent, and two carbon atoms to which Y<sup>52</sup> is condensed may be bonded by a single bond or a double bond; R<sup>51</sup> and R<sup>52</sup> each represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group; L<sup>51</sup>, L<sup>52</sup> and L<sup>53</sup> each represents a methine group; n<sup>51</sup> represents 0, 1, 2, 3 or 4; M<sup>51</sup> represents a counter ion; and m<sup>51</sup> represents a number of 0 or higher necessary to neutralize the charge in

the molecule.

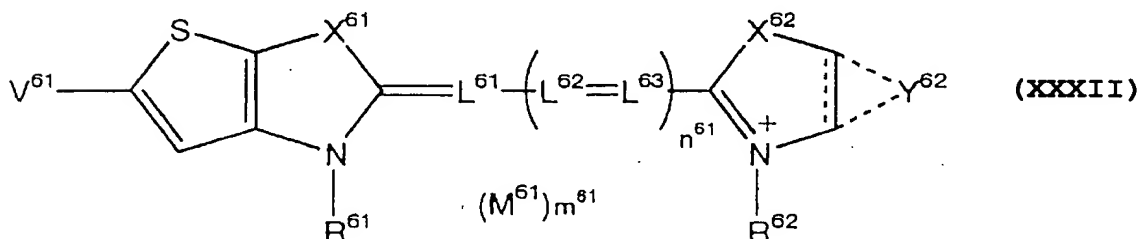
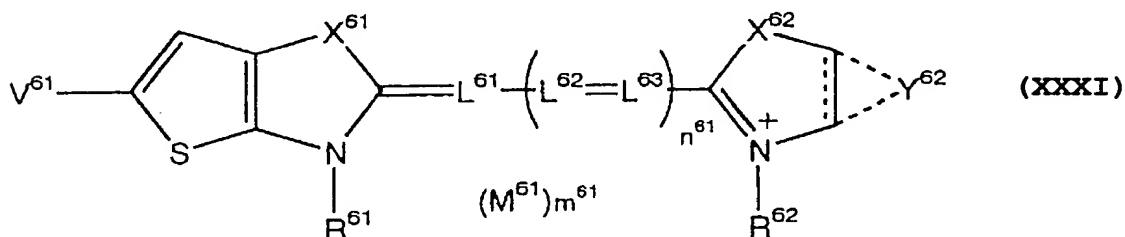
5. The silver halide photographic material as claimed in claim 3, wherein the methine dye represented by formula (I) is represented by the following formula (XXX):



wherein  $Y^{61}$  represents a thiophene ring which may be condensed with other 5- or 6-membered carbocyclic or heterocyclic ring or may have a substituent but is substituted with at least one halogen atom, and two carbon atoms to which  $Y^{61}$  is condensed may be bonded by a single bond or a double bond;  $X^{61}$  and  $X^{62}$  each represents an oxygen atom, a sulfur atom, a selenium atom, a tellurium atom, a nitrogen atom, or a carbon atom;  $Y^{62}$  represents an atomic group necessary to form a benzene ring or a 5- or 6-membered unsaturated heterocyclic ring, which may be condensed with other 5- or 6-membered carbocyclic or heterocyclic ring or may have a substituent, and two carbon atoms to which  $Y^{62}$  is condensed may be bonded by a single bond or a double bond;  $R^{61}$  and  $R^{62}$  each represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group;  $L^{61}$ ,  $L^{62}$  and  $L^{63}$  each represents

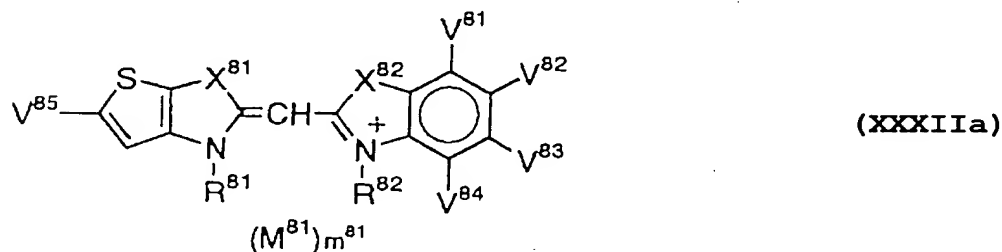
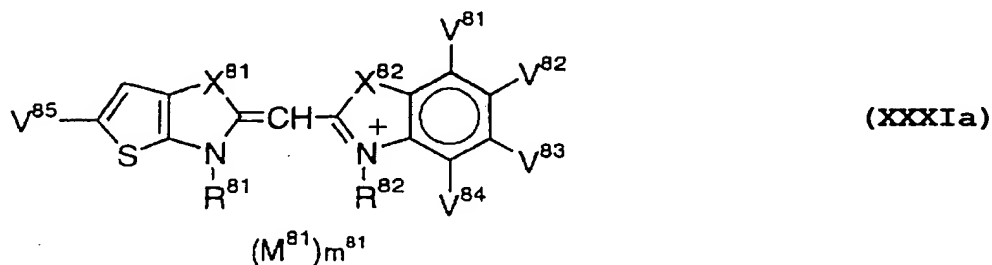
a methine group;  $n^{61}$  represents 0 or 1;  $M^{61}$  represents a counter ion; and  $m^{61}$  represents a number of 0 or higher necessary to neutralize the charge in the molecule.

6. The silver halide photographic material as claimed in claim 5, wherein the methine dye represented by formula (XXX) is represented by the following formula (XXXI) or (XXXII):



wherein  $L^{61}$ ,  $L^{62}$  and  $L^{63}$  each represents a methine group;  $V^{61}$  represents a halogen atom;  $X^{61}$ ,  $X^{62}$ ,  $Y^{62}$ ,  $R^{61}$ ,  $R^{62}$ ,  $L^{61}$ ,  $L^{62}$ ,  $L^{63}$ ,  $n^{61}$ ,  $M^{61}$  and  $m^{61}$  each has the same meaning as defined in formula (XXX) in claim 5.

7. The silver halide photographic material as claimed in claim 6, wherein the methine dye represented by formula (XXXI) or (XXXII) is represented by the following formula (XXXIa) or (XXXIIa):

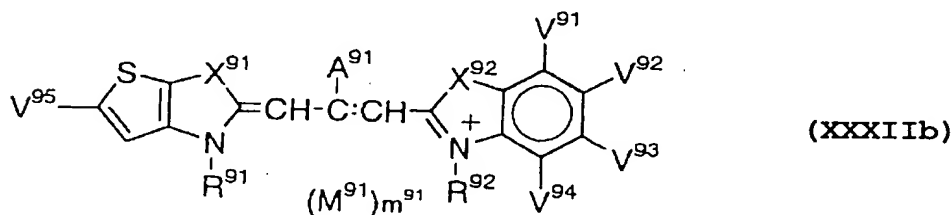
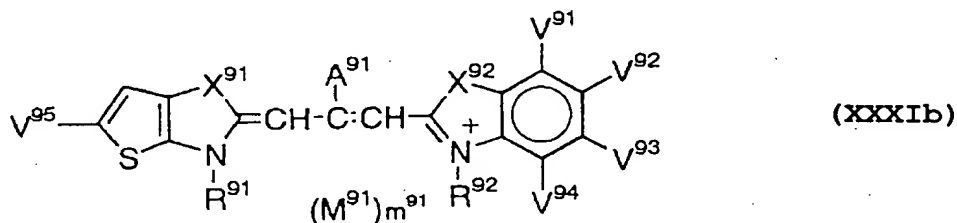


wherein  $V^{85}$  represents a halogen atom;  $X^{81}$  and  $X^{82}$  each represents an oxygen atom or a sulfur atom;  $R^{81}$  and  $R^{82}$  each represents an alkyl group substituted with an acid radical;  $V^{81}$ ,  $V^{82}$ ,  $V^{83}$  and  $V^{84}$  each represents a hydrogen atom or a substituent;  $M^{81}$  represents a counter ion; and  $m^{81}$  represents a number of 0 or higher necessary to neutralize the charge in the molecule.



8. The silver halide photographic material as claimed in claim 7, wherein in the methine dye represented by formula (XXXIa) or (XXXIIa), at least either  $R^{81}$  or  $R^{82}$  represents an alkyl group substituted with a carboxyl group or an alkanesulfonylcarbonyl group, and the other represents an alkyl group substituted with a sulfo group.

9. The silver halide photographic material as claimed in claim 6, wherein the methine dye represented by formula (XXXI) or (XXXII) is represented by the following formula (XXXIb) or (XXXIIb):



wherein  $V^{95}$  represents a halogen atom;  $X^{91}$  and  $X^{92}$  each represents an oxygen atom or a sulfur atom;  $R^{91}$  and  $R^{92}$  each represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group;  $A^{91}$  represents a methyl group, an ethyl group or a propyl group;  $V^{91}$ ,  $V^{92}$ ,  $V^{93}$  and  $V^{94}$  each represents a hydrogen atom or a substituent;  $M^{91}$  represents a counter ion; and  $m^{91}$  represents a number of 0 or higher necessary to neutralize the charge in the molecule.

10. A methine dye represented by formula (XXXIa), (XXXIIa), (XXXIb) or (XXXIIb).

Add 3